

ATTORNEY DOCKET NO.: 05015.0292U2
PATENT

- B¹
- (A) a dicarboxylic acid component comprising repeat units from at least about 80 mole % of terephthalic acid, isophthalic acid, naphthalene-2,6-dicarboxylic acid or a mixture thereof; and
- (B) a glycol component comprising repeat units from at least about 85 mole % ethylene glycol,
- wherein components A and B are based on 100 mole % dicarboxylic acid and 100 mole % of glycol; and
- II. from about 20 to about 2.5 weight % of a low molecular weight polyamide, having a number average molecular weight of less than about 15,000, having the repeating unit A-D, wherein A is the residue of a dicarboxylic acid comprising adipic acid, isophthalic acid, terephthalic acid, 1,4-cyclohexanedicarboxylic, resorcinol dicarboxylic acid, or naphthalenedicarboxylic acid, or a mixture thereof, and D is a residue of a diamine comprising *m*-xylylene diamine, *p*-xylylene diamine, hexamethylene diamine, ethylene diamine, or 1,4-cyclohexanedimethylamine, or a mixture thereof,
- wherein components I and II total 100 weight % of the polymer blend.

14. A method for reducing gas permeability of polyester comprising blending:

- B²
- I. from about 80 to about 97.5 weight % of a semi-crystalline polyester, which comprises the residues of:
- (A) a dicarboxylic acid component comprising repeat units from at least about 85 mole % of terephthalic acid, naphthalene-2,6-dicarboxylic acid or a mixture thereof; and
- sub

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(B) a glycol component comprising repeat units from at least about 85 mole% ethylene glycol,
wherein components A) and B) are based on 100 mole % dicarboxylic acid and 100 mole % of glycol; and

B²
II. from about 20 to about 2.5 weight % of a low molecular weight polyamide having a number average molecular weight of less than about 15,000 having the repeating unit A-D, wherein A is the residue of a dicarboxylic acid comprising adipic acid, isophthalic acid, terephthalic acid, 1,4-cyclohexanedicarboxylic, resorcinol dicarboxylic acid, or naphthalenedicarboxylic acid, or a mixture thereof, and D is the residue of a diamine comprising *m*-xylylene diamine, *p*-xylylene diamine, hexamethylene diamine, ethylene diamine, or 1,4-cyclohexanedimethylamine, or a mixture thereof, wherein components I and II total 100 weight % of the polymer blend.

Please add new claims 20 - 23 as follows:

B³
Sub (3)
20. The polymer blend of claim 1, wherein the amount of low molecular weight polyamide is from about 20 to greater than about 3 weight %, having a number average molecular weight of less than about 15,000, having the repeating unit A-D, wherein A is the residue of a dicarboxylic acid comprising adipic acid, isophthalic acid, terephthalic acid, 1,4-cyclohexanedicarboxylic, resorcinol dicarboxylic acid, or naphthalenedicarboxylic acid, or a mixture thereof, and D is a residue of a diamine comprising *m*-xylylene diamine, *p*-xylylene diamine, hexamethylene diamine, ethylene diamine, or 1,4-cyclohexanedimethylamine, or a mixture thereof.

21. The method of claim 14, wherein the amount of low molecular weight polyamide is from about 20 to greater than about 3 weight %, having a number average molecular weight of less than about 15,000, having the repeating unit A-D, wherein A is the residue of a dicarboxylic acid comprising adipic acid, isophthalic acid, terephthalic

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acid, 1,4-cyclohexanedicarboxylic, resorcinol dicarboxylic acid, or naphthalenedicarboxylic acid, or a mixture thereof, and D is a residue of a diamine comprising *m*-xylylene diamine, *p*-xylylene diamine, hexamethylene diamine, ethylene diamine, or 1,4-cyclohexanedimethylamine, or a mixture thereof.

22. An article comprising a polymer blend comprising:

I. from about 80 to about 97.5 weight % of a semi-crystalline polyester, which comprises the residues of

(A) a dicarboxylic acid component comprising repeat units from at least about 80 mole % of terephthalic acid, naphthalene-2,6-dicarboxylic acid or a mixture thereof; and

(B) a glycol component comprising repeat units from at least about 85 mole % ethylene glycol,

wherein components A) and B) are based on 100 mole % dicarboxylic acid and 100 mole % of glycol; and

II. from about 20 to about 2.5 weight % of a low molecular weight polyamide, having a number average molecular weight of less than about 15,000, having the repeating unit A-D, wherein A is the residue of a dicarboxylic acid comprising adipic acid, isophthalic acid, terephthalic acid, 1,4-cyclohexanedicarboxylic, resorcinol dicarboxylic acid, or naphthalenedicarboxylic acid, or a mixture thereof, and D is a residue of a diamine comprising *m*-xylylene diamine, *p*-xylylene diamine, hexamethylene diamine, ethylene diamine, or 1,4-cyclohexanedimethylamine, or a mixture thereof,

wherein components I and II total 100 weight % of the polymer blend and wherein the article has a haze value of from about 2 to about 5 times less than a polymer blend comprising polyester terephthalate and MXD6.